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| EXAMINER PATEL, PARESH H | | | | |
| ART UNIT 2829 | | | | |
| PAPER NUMBER | | | | |

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,977

Applicant(s)

HARTMANN, UDO

Examiner

Paresh Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 2, 3 and 5-8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-6, drawn to test system for conducting function test of a semiconductor element on a wafer, classified in class 324, subclass 765.
- II. Claims 7-8, drawn to method for conducting function test of a semiconductor element on a wafer, classified in class 324, subclass 765.

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the test system as claimed can be used with different methods as disclosed and claimed.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

If applicant elects group I, further election of species is required as follows:

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species of fig. 1; and

Species of fig. 2.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claim 1 is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Mr. Greenberg on 09/17/2003 a provisional election was made with traverse to prosecute the invention of group I, species of fig. 1, claims 1, 3, 4 and 6. Affirmation of this election must be made by applicant in replying

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to this Office action. Claims 2, 5, 7-8 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Elected claims 3 and 6 are also directed to the non-elected species (fig. 2) and hence withdrawn from further consideration.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the regulator of claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: line 6 should at line 15. Also, at line 25 of page 1 and at line 1 of page 2 location of "contact pins" is not clear. At line 4 of page 5 "base" should read --based--. At page 7, lines 3-5 "voltage drop increases from generation to generation" is not clear. At page 12, line 5 it is not clear what is ZIF stands for.

Appropriate correction is required.

Claim Objections

Claims 1 and 4 objected to because of the following informalities: at line 2 "the element" should read --the semiconductor element--.. At line 16-17 "a thermal pad" should read --the terminal pad-- and "the element" should read --the semiconductor element--. At line 21 on page 3 "hereinafore" should be corrected.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Hanashey (US 4023097).

Regarding claims 1 and 4, Hanashey discloses: A test system [fig. 1-2] for conducting a function test of a semiconductor element [DUT at 34 or 42] on a wafer, the element having terminal pads [Abstract], the test system comprising:

a voltage source [10, 12] delivering an output voltage [via force line 14] and providing a supply voltage of the element being tested [DUT];

a pin card [fig. 1 and PIN DRIVER CARDS of fig. 2] having:

supply contact pins [pins of cards for DUT];

a resistance[82-86]; and

a read contact pin [pin connected to sense line 20 and DUT] connected to one of said supply contact pins through said resistance producing a high-impedance electrical read connection to a terminal pad of the element being tested [lines 56-69 of column 5];

said supply contact pins including two supply contact pins [at least one source and one ground pin for DUT] each connected to the voltage source for applying the supply voltage to the terminal pads of the element being tested; and

a regulator (means for regulating for claim 4) [10, 12] controlling the output voltage based upon an electrical potential of said read contact pin.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Swapp (US 5467024).

Regarding claims 1 and 4, Swapp discloses: A test system [10, 40] for conducting a function test [AC/DC mode of operation] of a semiconductor element [64] on a wafer, the element having terminal pads [plurality of pin 63 on 64], the test system comprising:

a voltage source [11, 12] delivering an output voltage and providing a supply voltage of the element being tested;

a pin card [11, see lines 40-54 of column 3] having:

supply contact pins [first and second port];

a resistance [49 and Kelvin connection]; and

a read contact pin [39] connected to one of said supply contact pins through said resistance producing a high-impedance electrical read connection [Kelvin connection] to a terminal pad [63] of the element being tested;

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said supply contact pins including two supply contact pins [35 and ground pin of 12 or pin for 32 and 15] each connected to the voltage source for applying the supply voltage to the terminal pads of the element being tested; and

means for regulating (a regulator for claim 1) [11, 41] the output voltage based upon an electrical potential of said read contact pin.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paresh Patel whose telephone number is 703-306-5859. The examiner can normally be reached on M-F (8:30 to 4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 703-308-1233. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Paresh Patel
Sep. 23, 2003


EVAN PERT
PRIMARY EXAMINER